

Graywater Residential Plan Review Design Guidance

Graywater – Residential (one- and two-family dwellings)

A project permit application is complete when it meets the submission requirements of the Authority Having Jurisdiction (AHJ). It is the duty of the AHJ to inform the applicant, within 28 calendar days:

- a. That the application is complete; or
- b. The application is incomplete and what is needed to make the application complete.

Please resource the complete RCW 36.70B.070 regulations at;

<https://apps.leg.wa.gov/rcw/default.aspx?cite=36.70B.070>

- Submit one complete set of plans and required designer qualifications.
 - Plans shall be stamped by a WA State Professional Engineer (PE) who demonstrates competency designing, installing, operating and maintaining graywater systems

Exception: Residential graywater systems shall be designed in accordance with Washington State Department of Health – WAC 246-274, Chapter 15 of the UPC/SPC and engineered design

- Narrative of Scope to include but not limited to;
 - Graywater reuse (treated)
 - Cross connection control test – potable and non-potable
 - Non-potable plumbing fixtures
 - Irrigation (if applicable)
 - Plant water guide (if applicable)

- Application

- Alternate Material, Method or Modification Request Form – AMMRF (if applicable)

To expedite the plan review process in a timely manner, it is important that a complete set of plans be submitted. Below is design guidance to assist the applicant with minimum requests of information.

Plan documents for graywater systems new, altered or repaired must include the minimum criterion to be considered complete;

1. Cover sheet shall include but not limited to;

- Symbols

- Abbreviations
- General notes
- Code cycles used
- Sheet index
- Site address
- Assessor's parcel number (APN)
- Plumbing systems used in this project
- Graywater pipe labeling
- Designer credentials
- Plan name

Note: electronic plans must be provided with tabs which identify plan sheet so that review comments will correspond to plan sheet

2. Floor plans shall include but not limited to;

- Room names
- Graywater System
 - Fixtures
 - Appliances
 - Solids interceptor
- Plumbing Systems
 - Water
 - Waste
 - Storm
 - Pressure waste

Note: all plan sheets shall have a designated area 3' x 3" square labeled "PHSKC Stamp"

3. System Design shall include but not limited to;

- A. Pipe material used
- B. Sub-surface irrigation
 - Document "G20R" – Required - Subsurface Irrigation. Tier 1 – Department of Health**
 - Download "Tier 1 Graywater System Checklist & Irrigation Area Estimation Tool [Click Here](https://www.doh.wa.gov/portals/1/Documents/Pubs/337-077.pdf)
 - <https://www.doh.wa.gov/portals/1/Documents/Pubs/337-077.pdf>
 - Plant water guide (gallon-per-day-per-plant)
- C. Graywater diverter (three-way diverter valve)

4. Construction Details shall include but not limited to;

- A. Graywater overflow (three-way diverter valve)

5. Schedules shall include but not limited to;

- A. Equipment
- B. Plumbing Fixtures
- C. Irrigation

- D. Pipe Material
- E. Solids interceptor
- F. Signage
- G. Labeling of pipe system
- H. Shutoff valves

6. Riser Diagram shall include but not limited to;

- A. Riser diagram shall include graywater collection source(s) to point of use
- B. Riser diagram shall show all components and equipment of graywater system
- C. Size of pipe system and loading
- D. Label all components
- E. Filtration
- F. Three way diverter valve (surge capacity)
- G. Irrigation

7. Operation and maintenance manual but not limited to;

- A. Inspection schedule
- B. Shutdown procedure
- C. Startup procedure
- D. Maintenance Log and Responsibility
- E. Emergency Contact